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UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service  
Dairy Division  
Washington 25, D. C.

HOW FEDERAL MILK ORDER STATISTICS ARE DEVELOPED

Federal milk orders were effective in 79 milk market areas on March 1, 1960. These orders are issued only after public hearings are held to consider all relevant facts pertinent to their issuance and the terms they should contain. The statistical data collected under the program are an important segment of the information needed to appraise and administer the orders. These data are also compiled and released for the use of persons who are interested in studying the operations and effects of Federal milk orders.

Statistical Bulletin No. 248, "Federal Milk Order Market Statistics, 1947-56" and a supplement for 1957-58 contain historical data about Federal milk orders. Annual statistical compilations of these data will be released each year beginning with the 1959 statistics which will be available about June 1, 1960. A public release of monthly information began with the issuance of "Federal Milk Order Market Statistics, January 1960".

Why the Figures are Collected

Federal milk marketing orders are established under the authority of the Agricultural Marketing Agreement Act of 1937, as amended. Under this authority the Secretary of Agriculture is authorized, under certain conditions and with producer approval, to issue milk marketing orders which require handlers to pay at least the minimum specified prices for milk purchased from producers.

These Federal milk orders are legal instruments which define the applicable minimum prices and terms under which dairymen sell milk to handlers who use it primarily for fluid distribution in a regulated market. Milk is priced under classified price plans. These plans (1) divide milk received by handlers into classes according to the use they make of it and (2) provide appropriate minimum prices to be charged handlers for milk in each class.

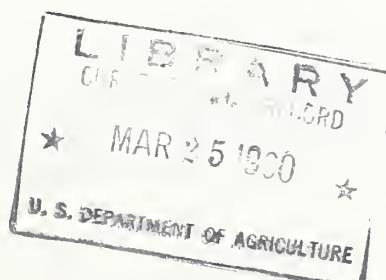
In order to determine how much milk handlers use in each price class they are required to file reports showing their receipts of milk from each source and the quantity used or disposed of in each form. Receipts of milk directly from farms and receipts from other plants are reported separately. All major fluid milk products and manufactured milk products are listed on the report form and handlers are required to specify the volume and butterfat content of milk used in each product. From these reports data are compiled and totaled for each market.

On the basis of these reports, the market administrator makes preliminary computations of the handler's obligation and calculates the minimum price he must pay producers. The market administrator is the Federal official in each market who, with the assistance of a staff, administers the terms of the Federal order.

How Figures are Verified

Following the receipts of reports from handlers and the computation of this preliminary statement of handlers' obligations, the market administrator sends auditors to handlers' plants where they examine financial books and records of plant operations to determine whether milk was actually used as reported and whether required payments were made to producers. Thus, data are available on an audited as well as a preliminary basis.

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Since Federal milk order statistics are developed from complete reports of the quantities of milk priced under Federal orders rather than sample data, they provide market information of more than usual reliability. In using these data, however, it is important to understand the character of fluid milk markets, the scope of data collected and reported under Federal orders, and certain limitations in the use of the data.

#### Federal Order Terms

Producers, as the term is used in Federal milk orders, means dairy farmers who deliver to handlers milk satisfactory to the appropriate health authorities for consumption as fluid whole milk. The persons or business entities which receive such milk from dairy farmers and either process it or deliver it to other persons for processing and packaging are called handlers in Federal milk orders.

Each order specifies the conditions under which a handler becomes regulated. One order may specify that if a handler disposes of a certain percentage of all milk he receives as Class I (fluid) milk in the marketing area, he is regulated by that order. Another order may have a similar requirement but the percentage (of sales in the area) on which regulation depends may be different.

The area in which a group of handlers sell milk to consumers is called a milk marketing area. A single marketing area often includes several cities and counties. It comprises an area within which this group of handlers compete for milk customers.

Classes of milk are defined in each Federal order and vary from market to market. Therefore, the order itself is the only source of complete information regarding the classification of a specific use of milk in a given market.

In most markets Class I milk includes all fluid milk beverages and fluid cream products, but there are important exceptions. Class I as defined in the Boston, New York-New Jersey, Philadelphia, and Chicago markets, for example, does not include all fluid cream and fluid cream products.

Similarly, in a majority of Federal order markets Class II represents milk used in all manufactured dairy products, but in some markets Class II uses include fluid cream, and in others the class designates only milk used in ice cream or in cottage cheese, and additional classes denote milk used in other manufactured dairy products.

#### What is Included in Quantities Reported for Each Market

Federal milk order statistics include volumes of milk received and sold by handlers regulated under each of the Federal orders. The volume of milk reported as received by handlers from producers includes all such milk regardless of where it may be sold. Milk identified as received from producers for a given market may be delivered to a plant which is several hundred miles from the marketing area but from which the milk is then shifted in bulk to a plant in the marketing area or in packaged form to consumers in the area. A large proportion of milk sold in the Boston, Mass., market and reported as received from producers for that market is delivered by farmers to plants in Vermont. In other large markets such as Chicago, Detroit, and New York the milk supply also is received from a milkshed spreading over several states.

Total (or gross) Class I milk or Class II milk reported for a given market represents all milk which regulated handlers disposed of in the respective class including their sales both inside and outside the marketing area. Total or gross Class I milk in some markets is a quantity greater than the Class I milk received from producers. Class I producer milk is the quantity of milk delivered by producers for which handlers were required to pay the minimum Class I price established by the order. Some handlers purchase milk from sources other than producers. Producer milk is usually assigned to the handler's Class I utilization ahead of receipts from other sources but if the handler's total Class I sales exceed receipts from producers, the milk received from other sources is assigned to his remaining Class I utilization.

For different purposes, the total quantities of milk delivered by producers are compared with the volume of Class I producer milk and with the gross Class I volume. Since Class I is the highest class price, the percentage of the total quantity sold at this highest price is important in determining the blend price producers receive.

Gross Class I, which includes all milk disposed of as Class I by regulated handlers, represents the total Class I market available to producers through these handlers. A comparison of producers' total deliveries of milk with handlers' gross Class I sales shows whether the total supply of producer milk is high or low relative to total Class I sales. This comparison is used to evaluate the need for increases or decreases in the Class I price to adjust the level of supply in relation to sales in the market.

#### What Prices Represent

All prices reported for Federal milk order markets are the minimum prices required to be paid under order terms. On occasion handlers pay prices in excess of these minimum amounts. Any such payments in excess of Federal order prices are in no way enforced by Federal milk orders and are not reported in order statistics.

Because milk prices vary at different locations, primarily because of transportation costs, Federal milk order prices are specified at one location, usually the marketing area, and plus or minus differentials are used to compute prices at other locations. Prices also vary according to the butterfat content of the milk and butterfat differentials are used to adjust hundredweight prices for each variation of 0.1 percent from a basic butterfat percentage.

#### Formulas for Class Prices

All Federal milk orders employ price formulas to establish class prices. Class I pricing formulas are of two general types. The most common type uses as a base the highest price resulting from two or more manufacturing milk price formulas plus a stated amount which often varies according to the season. In many markets the price is adjusted also to reflect the current condition of supply relative to sales as compared to a normal or desirable relationship. This adjustment factor is commonly called a supply-demand adjuster. Another type of Class I formula, used in the Northeastern region, depends on economic indexes rather than manufacturing milk prices for basic movers. These economic indexes measure such things as general wholesale prices, prices of things farmers buy, and consumers' incomes. Formulas which are based on economic indexes also have supply-demand adjusters.

There are also two general types of formulas employed to establish prices for milk used in manufacturing. One method is to relate the price to reported prices paid dairy farmers by plants engaged primarily in manufacturing. The other method is to use central market prices for certain manufactured dairy products such as butter, nonfat dry milk and cheese. From these prices a gross value per hundredweight of milk is computed and then a handling allowance is deducted to approximate the value of milk used for manufactured products.

#### Blend Prices

In Federal order markets, minimum prices required to be paid producers are termed blend prices. In markets where market-wide pools are used the blend price is the weighted average of all class values of milk used by all handlers and all producers must be paid at least this average price per hundredweight, subject to butterfat and location differentials. For orders which provide for individual handler pools the blend price reported in statistics for each market is a weighted average of all such individual handlers' blend prices. In markets where producer prices are established in terms of a base price and an excess price the blend price reported represents the weighted average of base and excess payments.

Under the market-wide pool, the total money value of all milk delivered by all producers to all handlers (pounds of milk in each class, multiplied by the minimum class prices and usually adjusted for butterfat and location differentials) is combined in one pool and the pool is divided by the total amount of producer milk which is priced. Then all producers are paid at least the same minimum blend price per hundredweight for their milk shipments. The blend price also is adjusted for variations in the butterfat content of the individual producer's milk and other specified differentials.

In an individual handler pool, the same computations are made in arriving at each handler's value of milk, and all producers supplying the particular handler are paid at least the same blend price per hundredweight (which also is adjusted for butterfat variations and other specified differentials). Under the latter type of pool, the proportion of milk used in the different classes varies among handlers, and producers supplying one handler will receive a blend price which differs from that paid producers supplying other handlers in the market.

#### Base and Excess Prices

Base-excess payment plans are used both in markets with individual handler pools and in market wide pools. A base which is the quantity of milk for which a producer is paid the higher base price, is determined according to his deliveries of milk in a base-forming period. During the base-paying period, the producer is paid the base price for milk not in excess of his established base. Deliveries in excess of base are paid for at the lower "excess" price. Base-forming and base-paying periods are specified in the orders which provide for such plans.

#### Seasonal Price Adjustment Funds

In some Federal order markets the pricing plan provides for withholding a specified amount from the pool fund in certain months. This plan is commonly known as the "Louisville plan" since it was first used in Louisville, Ky. Payments are withheld during specified months of normally high production and maintained in a special fund by the market administrator for distribution to producers in succeeding months of normally low milk production.

#### Fluid Milk Product Sales in Defined Marketing Areas

In Federal market order statistics, an important distinction is made between sales of fluid milk products in a marketing area and sales of these products in a market. The latter are reported by all regulated handlers in all markets and include their sales both inside and outside the defined marketing area.

However, in some markets handlers also provide information on a sales-in-the-area and sales-outside-the-area basis. Only where sales are segregated on this basis are such data compiled and reported. These data are useful in appraising trends in sales of fluid milk products which are due to changes in population and consumption per capita in the Federal order marketing areas.

In many instances it becomes necessary to redefine marketing areas. Sales are shown for such marketing areas, if possible, for an entire year, both according to the area before the change was made and according to the defined area after the change. This double reporting of sales for years in which area changes took place permits year to year comparisons both before and after the change.

#### Summary Statistics for all Federal Order Markets

The number of markets in which Federal milk orders were effective has increased over the period in which the program has been in operation. In order to measure certain changes in a group of markets, Federal milk order statistics have been summarized to show data for a group of markets for which information was available from January of one year through December of the following year. Thus, year to year changes are available for a comparable group of markets although the markets in the group have changed each year.



